



MICROCHIP LAB PTE LTD

Reg. No: 201933762Z

Semiconductor Packaging & Assembly

Traditional Assembly & Packaging

Wafer / Die Testing
Wafer Mounting
Wafer Dicing
Cerdips / SB package / PGA / QFP / Lead Frame
Die Attach (different methods)
Wire bonding (gold / aluminium / copper wire)
Encapsulation (Ceramic / Plastic molding)
Lead Trimming
Marking
Shipping

Flip Chip / Wafer Level Packaging

Re-Routing Distribution - Design
Under Bump Metallurgy
Solder Bumping / Reflow (High lead / Lead Free)
Dicing
Flip Chip Attach (ceramic / BU substrates)
Solder reflow

Through Silicon Via (TSV) Packaging Technology

Wafer backgrinding process
TSV masking / etching
Re-Routing Distribution - Design
Under Bump Metallurgy
Solder Bumping / Reflow (High lead / Lead Free)
Dicing
Flip Chip Attach (ceramic / BU substrates)
Solder reflow

3D package stacking

TSV packaging
Silicon / glass interposers
3D stacking of dies / chips / wafers
Final Bumping



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Silicon / Glass MEMS packaging

Silicon – Glass sandwich dicing process (critical for die yield)
Traditional / Flip chip / TSV package technologies as required
Glass to glass bonding
Wafer to wafer bonding

Microfluidics & micro channel fabrication

Micro channel design
Microchannel process on silicon & glass substrates

PCB Assembly Technology

Complete PCBA line set-up (equipment / process requirements / Quality Assurance)
PCBA Quality Issues

Solar wafer Manufacturing Process

Monocrystalline silicon
Multicrystalline silicon

Solar cell Manufacturing Process

Monocrystalline cells
Multicrystalline cells
CdTe
CIGS

Solar Module Manufacturing Process

Monocrystalline modules
Multicrystalline modules
CdTe modules
CIGS modules